

OCT 14 2004

**SUMMARY OF SAFETY AND EFFECTIVENESS**

K 042590

**I. GENERAL INFORMATION**

- A. Submitted By: Mattioli Engineering Corporation  
7918 Jones Branch Drive  
Suite 600  
McLean, VA 22102  
  
Tel: 703-312-6000  
Fax: 703-243-9139  
  
Contact Person: Ms. Linda Ferri  
At address above
- B. Device Trade Name: TRANSDERM IONTO System MK 2  
Common Name: Iontophoresis Device  
Classification Name: Device, Iontophoresis, Specific Uses
- C. Predicate Devices:

Manufacturer	Product Name	510(k) No.
Mattioli Engineering Corporation	TRANSDERM IONTO System	K032968

**II. DEVICE DESCRIPTION**

The TRANSDERM IONTO System MK 2 consists of a probe, power supply/support, and a disposable drug delivery cap electrode.

The TRANSDERM IONTO System MK 2 generates mechanical vibrations that are produced by an electric motor which has an unbalanced weight applied on the device shaft. The vibrations are transmitted by the motor body to a plastic plate that is held in contact with the skin through the disposable drug delivery cap electrode.

Electrical pulses are produced by an electronic pulse generator that is able to generate bursts of pulses that are applied to the skin through electrodes applied to a plastic plate (the applicator). The design of the device provides one channel output.

The TRANSDERM IONTO System MK 2 requires a DC supply of 9 V, 1.0 A max. This power source is supplied by, the TRANS-BASE module which is connected to mains through a removable supply cord and is equipped with a proper connector receptacle to fit the connector male mounted on TRANSDERM

IONTO probe supply cable. The TRANS-BASE is equipped with a 15 w AC-DC switch mode power module.

The drug delivery cap electrode is adhered to the patient's skin and then saturated with ionic solution. Once the drug delivery cap electrode is affixed to the patient's skin, the TRANSDERM IONTO probe's applicator head can be attached to the internal side of the drug delivery cap electrode.

### **III. INDICATIONS FOR USE**

The TRANSDERM IONTO System MK 2 is a powered iontophoresis drug delivery system that is indicated for the local administration of ionic drug solutions into the body for medical purposes and can be used as an alternative to injections.

### **IV. TECHNOLOGICAL COMPARISON**

The TRANSDERM IONTO System MK 2 and the TRANSDERM IONTO System (K032968) have the same indications for use and overall function and perform in the same manner with respect to iontophoretic drug delivery. Performance testing supports that the TRANSDERM IONTO System MK 2 decreases the patient's perception of the electrical currents.

### **V. TESTING**

Performance testing and the applicable IEC 60601-1 standards testing including 21 CFR 898 was performed.

### **VI. CONCLUSIONS**

The TRANSDERM IONTO System MK 2 is substantially equivalent to the legally marketed iontophoretic devices in intended use and performance.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

OCT 14 2004

Mattioli Engineering Corporation  
C/o Ms. Melissa Mahall  
Bio-Reg Associates, Inc.  
11800 Baltimore Avenue  
Suite 105  
Beltsville Maryland 20705

Re: K042590  
Trade/Device Name: TRANSDERM IONTO System MK 2  
Regulation Number: 21 CFR 890.5525  
Regulation Name: Iontophoresis device  
Regulatory Class: III  
Product Code: EGJ  
Dated: September 23, 2004  
Received: September 23, 2004

Dear Ms. Mahall:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act), as long as you comply with all of the Act's requirements relating to drugs labeled or promoted with the devices as described below. You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Our substantially equivalent decision does not apply to drugs for use with your device. Therefore, you may neither label nor promote your device for use with specific drugs other than Iontocaine (Lidocaine HCl 2% and Epinephrine 1:100,000 Topical Solution), nor package drugs with your device prior to FDA having approved the drugs for iontophoretic administration. For information on the requirements for marketing new drugs, you may contact:

Director  
Division of Drug Labeling Compliance (HFD-310)  
Center for Drug Evaluation and Research  
Food and Drug Administration  
5600 Fishers Lane  
Rockville, Maryland

As you are aware, iontophoresis devices that are intended to use a direct current to introduce ions of soluble salts or other drugs into the body and induce sweating for use in the diagnosis of cystic fibrosis or for other uses, if the labeling of the drug intended for use with the device bears adequate directions for the device's use with that drug, were classified into Class II. An iontophoresis device that is intended to use a direct current to introduce ions of soluble salts or other drugs into the body for medical purposes other than those specified for class II devices is classified into Class III (21 CFR 890.5525). We published our strategy for calling for premarket approval (PMA) applications in the enclosed Federal Register, dated May 6, 1994, and the enclosed memorandum, dated April 19, 1994, and the enclosed Federal Register, dated August 22, 2000.

If you have any questions regarding this letter, you may contact:

Kevin Lee, M.D.  
Food and Drug Administration  
Center for Devices and Radiological Health  
Division of General, Restorative and Neurological Devices  
9200 Corporate Boulevard (HFZ-410)  
Rockville, Maryland 20850  
(301) 594-1296

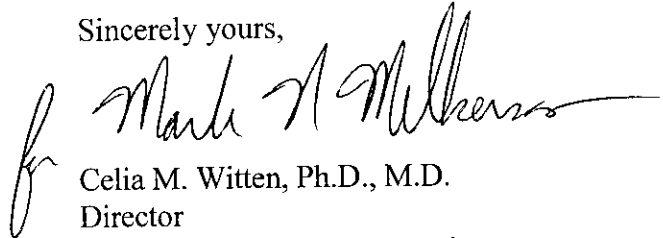
This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation, please contact the Office of Compliance at (240) 276- 0120. Also, please note the regulation entitled, "Misbranding by

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reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll free number (800) 638-2041 or (301) 443-6597, or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

A handwritten signature in black ink, appearing to read "Celia M. Witten", with a long horizontal flourish extending to the right.

Celia M. Witten, Ph.D., M.D.

Director

Division of General, Restorative  
and Neurological Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosures

## INDICATIONS FOR USE

510(k) Number: \_\_\_\_\_

Device Name: TRANSDERM IONTO System MK 2

Sponsor Name: Mattioli Engineering Corporation

### Indications for Use:

The TRANSDERM IONTO System MK 2 is a powered iontophoresis drug delivery system that is indicated for the local administration of ionic drug solutions into the body for medical purposes and can be used as an alternative to injections.

Prescription Use ☒  
(21 CFR 801 Subpart D)

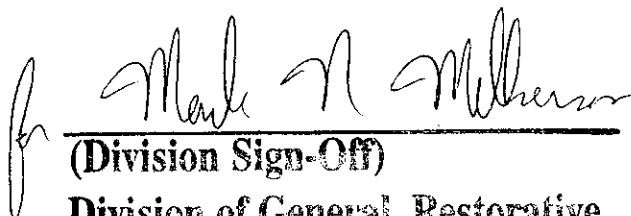
And/Or

Over-The-Counter Use ☐  
(21 CFR 807 Subpart C)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
**(Division Sign-Off)**  
**Division of General, Restorative,  
and Neurological Devices**

**510(k) Number** K042590